

Web 2.0 beyond the buzz

Like many emerging technologies, Web 2.0 continues to attract more than its fair share of misconceptions and hype. IBM's David Boloker, CTO, Emerging Internet Technology, Software Group, describes Web 2.0 as a category of technologies that has to do with collaboration, simplicity and seeing things much more vividly through Internet user interfaces. "We're seeing a new class of applications begin to develop through this Web tool paradigm that re-mixes content from multiple sources," he says.

Until recently, many aspects of Web 2.0 have been aimed at consumers. Says Boloker, "The Web site del.icio.us is an example of basic Web 2.0 functionality, where people vote on things or make recommendations. Google Gmail is an example of using more advanced features of Web 2.0. Customers can customize this e-mail program to add features such as maps, discussions and address books as they see fit."

Businesses are also discovering the advantages of using Web 2.0 software tools that provide more flexibility than traditional prepackaged applications. Since many Web 2.0 tools are offered under the open source model, users are free to customize and change features to support their own business processes. This unprecedented flexibility can help meet new business challenges at an affordable price point.

Web 2.0 helps you do more with less

While a precise definition remains somewhat controversial, Web 2.0 applications typically share several common characteristics. They allow users to exchange and contribute ideas on how to deliver information and services, do not require large amounts of downloadable data and interoperate with other kinds of software.

Not all Web 2.0 tools are appropriate for every business situation, but understanding the composition of these new technologies can help you decide which aspects of Web 2.0 could have an impact on your daily business operations.

"When you start thinking about browser-based applications, the first thing you think about is how people are collaborating," Boloker notes. "How are people using their e-mail? How are people using instant messaging? What we're seeing is a new generation of applications start to appear."

This new class of tools includes:

- **AJAX** is an abbreviation for "Asynchronous JavaScript and XML." This programming technique allows Web browsers to retrieve data from servers without refreshing the entire page. This speeds up user interactions with browser-based applications such as maps and online shopping catalogs. For example, AJAX might allow shoppers to click through various styles and colors in an online clothing catalog without lengthy page reloads.
- **Blogs**, a shortened version of "Web logs," are now giving just about everyone a voice on the Internet. Although they are often simple diaries or bulletin boards, some businesses use this medium to express thought leadership, chronicle company developments and ensure that everyone within a company understands new directions and initiatives.
- **Mashups** do what you would expect—they mash content together. These user-created Web applications combine content from multiple sources to create a new application. For example, a mashup could blend external information such as news feeds, weather reports, maps and traffic conditions with a company's own information.
- **Syndication and aggregation with Atom and RSS (really simple syndication) feeds** allow users to subscribe to specific kinds of content. Instead of having to visit multiple Web

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sites to check for updated information, users can have all information displayed on a single dashboard, which can be extremely useful to employees who rely on regularly updated information to support key decisions.

- **Tagging** was originally popularized by the social bookmarking site del.icio.us. Tagging uses keywords instead of sequential lists or hierarchies to search entire categories of subjects. The output is very visual—popular keywords appear larger than other keywords. This makes tagging ideal for activities such as quickly tracking customer interest.
- **Wikis** are more than the Hawaiian description for quick. In Web 2.0 parlance, wikis are collective authoring environments where users can create, edit and link to pages without using HTML syntax or complicated coding tools. The best example is the online Wikipedia encyclopedia. But in business environments, wikis can be used by multiple people to update and share knowledge through a simple browser interface.

Software becomes a service

The concept of reusing readily available content, which is often free on the Internet, is also changing perceptions of what software should be. By using customizable tools, such as wikis or sites like Google Maps, software applications are being replaced by Web services. Where software packages are typically designed for a narrow range of uses, these Web services can be used for multiple purposes. For SMBs, this creates the attractive proposition of having technology available to meet pressing business needs.

“We’re starting to see things that were once only possible on very high end systems now end up in the SMB space—because technology has gotten to the point where we can build richer interfaces,” Boloker says.

For example, a logistics manager at a home improvement store might need to plan the most efficient way to send shovels and snowblowers to stores in the Northeast before a forecasted storm hits the region. By using a mashup, the manager could create a real-time dashboard by dragging and dropping weather reports from the National Weather Service, online maps and the company’s national hardware inventory data. This combined application could then help prioritize deliveries.

Similarly, salespeople could use a mashup to create a dashboard that pinpoints likely sales targets. By combining information from blogs, wikis and news feeds with contact information in an e-mail address book, the resulting mashup might provide a better understanding of customer interests.

Having access to a growing number of Web 2.0 applications will not necessarily come with the same limitations as those found in traditional applications. Boloker explains, “One of the things that will become much easier over the next few years is storing things in a network.” Boloker notes several advantages to this development, “Someone else worries about the issues of management of information—as well as backup of information—and all I really need is a browser interface.”

Web 2.0 helps businesses fill gaps and build new capabilities cost-effectively

While the Internet buzz can make the possibilities of Web 2.0 seem endless, you should approach Web 2.0 as simply a business tool that still needs some bugs ironed out. To find ways that these tools might bring competitive advantages to your business, start by listing your key business processes and look for ways that Web 2.0 services might help improve those processes or fill gaps.

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At the same time, bear in mind that most Web 2.0 technologies are based on the premise that information should be openly accessed and shared. Some aspects of running a business, such as human resources and financial transactions, simply are not suited to this open approach, whereas others such as marketing and planning may benefit greatly.

Web 2.0 may not be entirely ready for prime time, and Boloker believes these technologies will probably be ready for widespread adoption within the few years. “The learning curve on all of these is pretty steep at this point,” Boloker cautions.

Yet, he also says that SMBs should keep themselves apprised of Web 2.0 developments that will become more accessible sooner rather than later. “The early adopters are already here, and they’re starting to look at a lot of the issues that need to be addressed: reliability, availability, security,” he says. “The good news for most SMBs is that large enterprises are the first jumping into this, which will drive the costs down. This should help bring the software to a commodity level so people can use it everywhere at very low cost—with their own value add to enhance the experience.”